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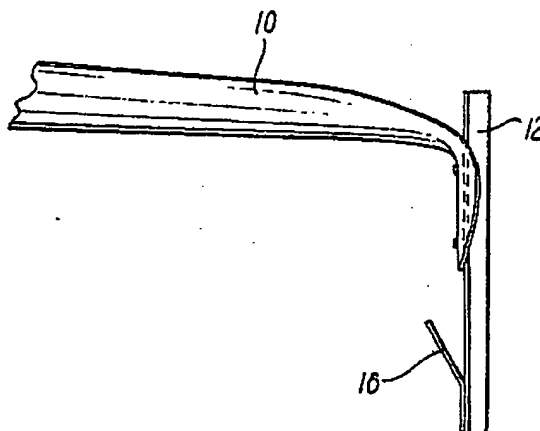
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AT BE CH DE ES FR GB GR IT LI LU NL SE(71) Applicant: SWINTEX LIMITED  
Derby Works Manchester Road  
Bury Lancashire BL9 9NX(GB)(72) Inventor: Schofield, Barrie  
151A Manchester Road  
Heywood Lancashire(GB)  
Inventor: Wallwork, Peter  
15 Croyde Close  
Harwood Bolton, BL2 4HJ Lancashire(GB)(74) Representative: Low, Peter John et al  
WILSON, GUNN & ELLIS 41 Royal Exchange  
Manchester, M2 7BD(GB)

(54) Marker post.

(57) A marker post which can be quickly installed at the edge of a road comprising a flexible body (10) of part circular cross-section with an elongated metal base (12) preferably of T-shaped cross-section. To secure the post in place the body is flexed away from the base so that the base can be driven into the ground with a hammer. When the body is released it returns to an upright disposition.



**FIG. 5**

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# MARKER POST

This invention relates to a marker post and more particularly, but not exclusively a marker post for roads.

Marker posts for roads, commonly known as verge markers or wayside markers are of two main types, rigid and flexible. In order to install the rigid posts they can be driven into the ground in the manner of a pile. For flexible posts special tools are needed if the post is to be driven into the ground without breaking the post. Although the posts themselves are not particularly expensive these special tools are relatively much more costly so that the overall cost of installation is high. An alternative to the use of special tools is to dig a hole for each post and fix the post in place with concrete poured into the hole. These procedures are time consuming and labour intensive. As a consequence the overall cost of installation is also expensive.

The present invention has been made from a consideration of these problems.

According to the invention there is provided a marker post comprising a flexible body portion and a rigid base portion, the flexible body portion being adapted to be flexed sufficiently to expose the top of the rigid base.

In a preferred embodiment of the invention the body is made of flexible plastics material and the base is made of metal. The plastics material and the body shape should be of the kind which, for the purpose of installation, can be bent or flexed sufficiently to expose the tip of the metal base without permanent set so that when unrestrained the body will return to its normal position. Examples of shapes which are suitable are disclosed in European Patent 0103578.

The metal base is preferably of profiled section for example T-shaped, U-shaped, L-shaped, of box section or other suitable cross-section. The base may be unprofiled, for example of circular cross-section. The metal base is fixed to the lower end of the flexible body at a location below the top of the base. The top of the flexible body can be flexed away from the base to expose the top of the base which can then be driven into the ground by suitable means such as a hammer. When the flexible body is unrestrained it returns to its normal disposition.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Fig.1 is a rear elevation of a marker post;

Fig.2 is a vertical section through the post of Fig.1;

Fig.3 is a section on the line III-III of Fig.1;

Fig.4 is an under plan view of the post of Fig.1; and

Fig.5 is a side elevation of the post of Fig.1 with the body flexed to expose the base.

Referring to the drawings the marker post comprises a body 10 preferably of flexible plastics such as a polypropylene which can be flexed without permanent set and which does not become brittle at low temperatures. The body is of part circular cross section and preferably of gradually reducing lateral arcuate extent from bottom to top. In the embodiment illustrated the bottom of the body extends laterally over slightly more than a semi-circle (Fig.4) and at its top the body extends over slightly less than a semi-circle (Fig.3). The lowermost part of the body is of tapered form.

The base 12 of the post comprises a rigid elongate member, preferably of metal. The cross-section of the base in the embodiment illustrated is T-shaped. Other profiles can be used for example U-section or box section. L-shaped cross-section bases are not always entirely satisfactory however, as they may twist in use.

The base is fixed to the concave side of the body by appropriate fasteners such as bolts or rivets 14 so that the longitudinal axis of the base is substantially aligned with the centre line of the body. The base is secured such that about half of its length projects below the bottom of the body. The uppermost fastener is located a short distance below the top of the base. A barb 16 is provided adjacent the bottom end of the base.

In use the body can be bent away from the base as illustrated in Fig.5. The base can then be driven into the ground using a simple tool such as a hammer or mallet. When the body is released it springs back to the upright position. The whole operation takes a few minutes and requires no special equipment. The barb prevents the post from being pulled out of the ground.

When the ground is very hard, for example in rocky outcrops, a hole may be preformed as by drilling. Provided that the hole has a diameter which is about the same as the maximum cross-sectional dimension of the base 12, insertion of the base into the hole can be accomplished quite readily and the base will be held firmly in the hole. Even if the hole is larger than the cross section of the base the barb will hold the post in place. The costs of this kind of installation do not greatly exceed the costs of installing the marker post of the invention in softer ground.

The invention is not restricted to the above described embodiment. Many variations and modi-

fications can be made. Although the specific embodiment just described relates to a marker post for the edges of roads it is to be understood that the post of the invention can be used in many other places and for various purposes. The post can carry some reflective material so that it will be noticeable at night when light falls onto it. Markings, whether reflective or not, can be applied to the post to give information, for example direction, distance, hazard warning, rights of way and the like. The post can be used to mark the line of footpaths, bridle paths or tracks and it can be used to mark the line of buried services such as gas, water, electricity and so on.

Although reference is made to the body of the post being made of plastics other flexible materials can be used for example glass or carbon fibre reinforced plastics and materials made from carbon fibre.

#### Claims

1. A marker post comprising a flexible body portion and a rigid base portion, the flexible body portion being adapted to be flexed sufficiently to expose the top of the rigid base.
2. A marker post as claimed in Claim 1, wherein the body portion is comprised of plastics material and is shaped such that it can be flexed at least to expose the top of the base without permanent set.
3. A marker post as claimed in Claim 1 or Claim 2, wherein the body is of part circular cross-section.
4. A marker post as claimed in any preceding claim, wherein the body is of gradually reducing lateral arcuate extent from bottom to top.
5. A marker post as claimed in any preceding claim, wherein the base comprises a rigid elongate member.
6. A marker post wherein the base is of profiled section preferably of T-section, U-section, L-section or box section.
7. A marker post as claimed in any preceding claim, wherein the body is fixed to the base at one or more locations below the top of the base.
8. A marker post as claimed in any preceding claim, wherein at least a part of the surface of the body is reflective.
9. A marker post as claimed in any preceding claim wherein marking is applied to at least part of the surface of the body.

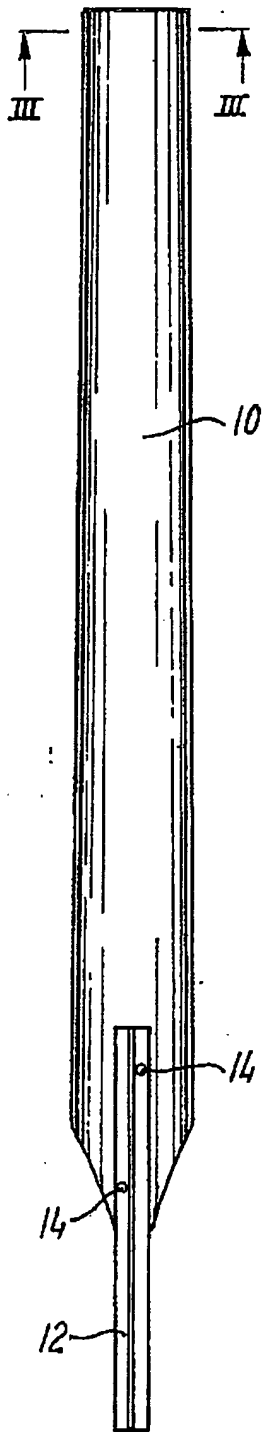


FIG. 1

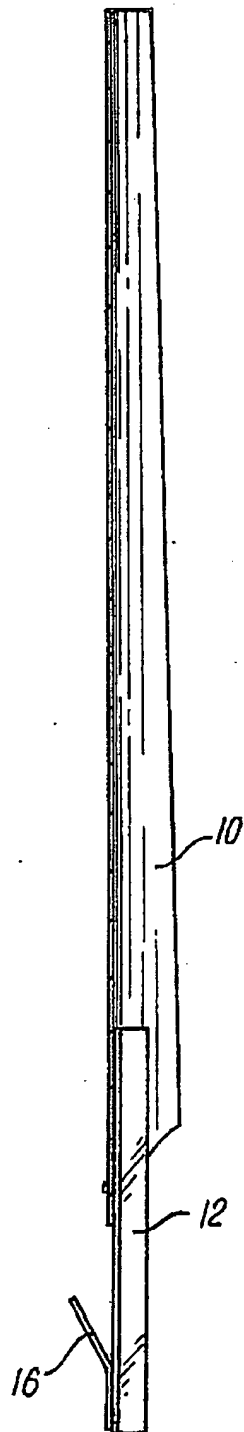


FIG. 2



FIG. 3

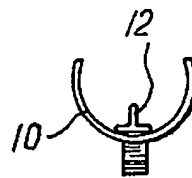


FIG. 4

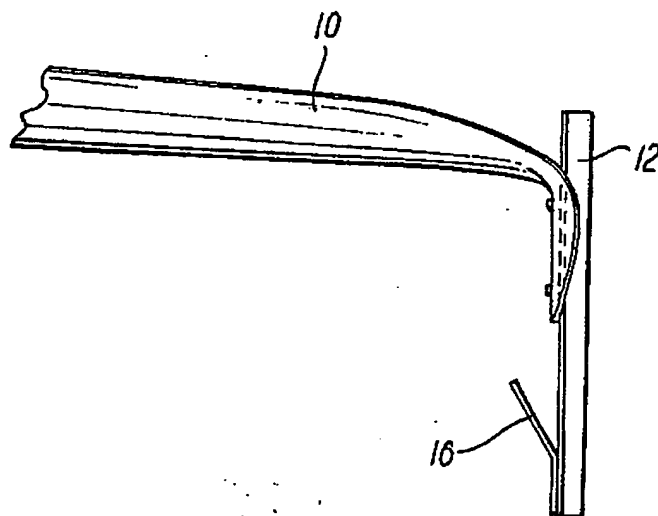


FIG. 5



European Patent  
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# EUROPEAN SEARCH REPORT

Application Number

EP 89 30 2906

| DOCUMENTS CONSIDERED TO BE RELEVANT   |  |  |  |
|---|--|--|--|
| Category  | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim                              | CLASSIFICATION OF THE APPLICATION (Int. Cl. 4) |
| X   | US-A-4 298 292 (SWEENEY)<br>* Column 2, lines 32-36, 40-48, 52-57, 67, 68; column 3, lines 1-6, 17, 18, 20-22, 34-38, 55-60; figures 1-3, 4A *   | 1, 2, 5-9                                      | E 01 F 9/01                                    |
| Y   | ---  | 3, 4   |  |
| X   | LU-A- 82 466 (TLB PLASTICS)<br>* Page 5, lines 27-31; page 6, lines 1-6, 10-12; page 7, lines 13, 14, 21, 22, 24-27, 31, 32; page 8, lines 1, 2, 7-12, 17-19; page 9, lines 6-9, 13-15, 26-29 *                | 1, 5-7, 9                                      |  |
| Y   | ---  | 2-4  |  |
| A   | ---  | 8  |  |
| Y, D  | WO-A-8 301 972 (BJÖRLUND)<br>* Page 1, lines 6, 7, 9-15; page 2, lines 11-13, 15-20; page 3, lines 24-31; page 4, lines 24-35; page 5, lines 18-23, 28-31; page 5, line 37 - page 6, line 1; figures 1-8, 11 * | 2-4  |  |
| A   | ---  | 8, 9   | TECHNICAL FIELDS SEARCHED (Int. Cl. 4)         |
| X   | US-A-2 030 623 (EGGLESTON)<br>* Page 1, left-hand column, lines 13-20; page 1, right-hand column, lines 10-15, 35-45; page 2, left-hand column, lines 1, 2; figures 3, 4, 7 *                                  | 1, 5, 6  | E 01 F   |
| A   | ---  | 8, 9   |  |
|   | ---  | -/-  |  |
| The present search report has been drawn up for all claims  |  |  |  |
| Place of search<br>THE HAGUE  |  | Date of completion of the search<br>30-06-1989 | Examiner<br>SCHUMAN R.                         |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |  |  |  |



| DOCUMENTS CONSIDERED TO BE RELEVANT   |  |  |   |
|---|--|--|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim                              | CLASSIFICATION OF THE APPLICATION (Int. Cl.4) |
| X   | FR-A-1 311 952 (VALLETTE & PAVON)<br>* Page 1, left-hand column, lines 16-21; page 1, right-hand column, line 34 - page 2, line 10; figures 1-4 *  | 5,6,8  |   |
| P,X   | HIGHWAYS, vol. 56, no. 1937, May 1988, page 29, Croydon, Surrey, GB; "Impact resistant marker postrange"<br>* Complete article and illustrations * | 1-9  |   |
|   |  |  | TECHNICAL FIELDS SEARCHED (Int. Cl.4)         |
| The present search report has been drawn up for all claims  |  |  |   |
| Place of search<br>THE HAGUE  |  | Date of completion of the search<br>30-06-1989 | Examiner<br>SCHUMAN R.                        |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>I : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |  |  |   |